SCHOOL OF MEDICINE

GENETIC TESTING LABORATORIES

The IU Cytogenetics Laboratory of the IU Genetic Testing Laboratories (IUGTL), Department of Medical and Molecular Genetics, is pleased to announce the availability of a new FISH test.

The Acute Myeloid Leukemia (AML) Panel has been expanded to include a *NUP98* break-apart probe set to detect rearrangements of 11p15.4 in patients with *de novo* and therapy-related acute myeloid leukemia (AML). *NUP98* is also rearranged in other hematologic malignancies including MDS, CML in blast crisis and T-ALL, often occurring as a complication of prior chemotherapy with topoisomerase II inhibitors. The *NUP98* gene is involved in chromosomal translocations with many different partner genes in myeloid malignancies, arising in patients of all ages, many with normal karyotypes. The detection of NUP98 gene disruption will aid in the diagnosis of AML and indicates a poor prognosis and a poor treatment outcome [PMID: 24657637; 31681706]. The NUP98 break-apart probe set will be incorporated both as part of the AML Panel and offered as an individual probe set for ordering.

The new testing will launch 7/22/2020. Our requisitions have been updated for ordering and are available online at https://geneticslab.medicine.iu.edu/Requisition-Forms.html. The new panel is not yet updated in Cerner for ordering.

Updated AML Panel	**Genomic Target**
inv(3); t(3;3)	*MECOM/RPN1 fusion*
-5/del(5)	Multiple genes
DEK/NUP214	*DEK/NUP214* fusion, t(6;9)
-7/del(7)	Multiple genes
8 centromere/*20q13*	Gain of chromosome 8/Loss of D20S108
RUNX1T1/RUNX1	*RUNX1T1/RUNX1* fusion, t(8;21)
**NUP98*	*NUP98* rearrangement
KMT2A(MLL)	*KMT2A* rearrangement
PML/RARA	*PML/RARA* fusion, t(15;17)
CBFB/MYH11	*CBFB/MYH11* fusion

NOTE: The IUH Pathology Laboratory considers the IU Cytogenetics Laboratory a reference laboratory. Therefore, to assure that samples remain on campus, please designate on the order and requisition form that the specimen should be sent to the IUGTL.

Send all specimens to the IU Cytogenetics Laboratory, 975 W. Walnut Street, IB 350, Indianapolis, IN 46202. Should courier services be required, please call the laboratory at (317) 274-2243. The laboratory staff will pick up specimens on campus. For questions, please call the Cytogenetics Laboratory at (317) 274-2243.

975 W. Walnut Street, IB 350 Indianapolis, IN 46202-5251 (317) 274-2243 Fax (317) 278-1616
Indiana University – Purdue University Indianapolis